

REMARKS

This Amendment amends claims 1 and 3 and adds new claims 10 and 11 in accordance with the original disclosure. Support for the claim amendments and new claims is found, for example, in the specification at paragraphs 0017 and 0018. Claims 1-11 are now present in this application.

Allowable Subject Matter

In paragraph 5 of the Office Action, the Examiner states that claim 3 would be allowable if rewritten in independent form. As set forth above, Applicant has rewritten claim 3 in independent form, with the exception that the limitation that the bearings are “in an O-arrangement” has been deleted since this limitation is not believed necessary to define over the cited art. Therefore, claim 3 is now believed to be in condition for allowance. Reconsideration of the rejection to claim 3 is respectfully requested.

Rejections Under 35 U.S.C. § 102

Claims 1, 2, and 5-9 stand rejected for anticipation by German reference DE 198 54 415 (hereinafter “DE ‘415”). In view of the above amendments and the following remarks, reconsideration of these rejections is respectfully requested.

Claim 1, as amended, is directed to a hydrostatic axial piston machine comprising a swashplate, a cylinder block, and a cylinder block bearing system comprising two bearings. The machine further comprises a brake configured to arrest the cylinder block and a compensation device configured to at least partially relieve the cylinder block bearing system from axial engine forces. The compensation device is integrated into the brake and the compensation device is located axially between the bearings.

As best understood from German reference DE ‘415 (and U.S. Patent No. 6,334,512 claiming priority to DE ‘415), DE ‘415 discloses an axial piston motor having two bearings 3a and 3b that mount an output part 4 inside a bearing bush 2. A spring-loaded brake 13 is pushed toward a closing position by a belleville spring washer 14 and is hydraulically released by an annular piston 15. The brake 13 and belleville spring washer 14 are located at an end of the motor (right end in the drawing). The Examiner equates the belleville spring washer 14 of DE ‘415 with the “compensation device” of original claim 1. However, as set forth in amended claim 1, DE ‘415 does not teach or suggest a hydrostatic

axial piston machine having a cylinder block bearing system comprising two bearings with the compensation device located axially between the bearings. In DE '415, the belleville washer 14 (which the Examiner equates with the claimed compensation device) is clearly located at one end of the motor casing, not between the bearings. As discussed in the pending specification at paragraphs 0017 and 0018, the structure of the claimed invention with the belleville spring washer 10 and brake piston 11 located axially between the two helical roller bearings 3a and 3b provides a central relief of the cylinder block bearing system. In the specifically disclosed embodiment, the brake piston 11 has a hydraulically pressurized relieving surface 11a. The belleville spring washer 10 is supported by a retaining ring H on the inner ring of the helical roller bearing 3b and absorbs axial engine forces. When the space in which the disc package 12 is pressurized to apply pressure to the relieving surface 11a, the brake 9 is released. The axial force acting on the brake piston 11 is directed opposite to the axial engine forces because the brake piston 11 first presses against the belleville spring washer 10 and then, as it continues to move to the right in the figure, presses against the retaining ring H supported on the inner ring of the helical roller bearing 3b. This structure is neither taught nor suggested in DE '415. Therefore, amended claim 1 is not anticipated by DE '415 and is believed to be in condition for allowance. Reconsideration of the rejection of claim 1 is respectfully requested.

Claims 2 and 5-9 depend from claim 1 and, therefore, are also not anticipated by DE '415. Since these claims depend from a claim believed to be in condition for allowance, the claims are also believed to be in condition for allowance. Reconsideration of the rejections of claims 2 and 5-9 is respectfully requested.

Rejections Under 35 U.S.C. § 103(a)

Claim 4 stands rejected for obviousness over the teachings of DE '415 in view of the teachings of U.S. Patent No. 6,145,635 to White.

Claim 4 depends from claim 1 and includes the limitation that the brake is a wet, multiple-disc brake. DE '415 has been discussed above. White discloses a "wet" brake mechanism 100 in which the cavity 30 containing the brake mechanism contains hydraulic fluid. While White does disclose a wet multi-disc brake, White does not overcome the shortcomings of DE '415 discussed above. Therefore, since claim 4 depends from claim 1,

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claim 4 is believed allowable over the DE '415 and White combination for the same reasons as discussed above. Reconsideration of the rejection of claim 4 is respectfully requested.

New Claims 10 and 11


New claims 10 and 11 depend from claim 1 and further define the bearings and brake structure.

Conclusion

In view of the above amendments and remarks, Applicant believes claims 1-9, as amended, are patentable over the cited prior art and are in condition for allowance. Reconsideration of the rejections and objections to claims 1-9 and allowance of all of claims 1-11 are respectfully requested.

Respectfully submitted,

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